

November 18th (Wednesday)

- 8:15-9:00 Registration
- 9:00-9:15 **Opening**
Hideo Ohno (*Organizer, Tohoku University*)
- 9:15-10:00 W-1 **Stuart Parkin**
(*Max Planck Institute of Microstructure Physics, Martin Luther University Halle-Wittenberg*)
- 10:00-10:20 W-2 **Gen Tatara**
(*RIKEN Center for Emergent Matter Science*)
Rashba-induced spin motive force
- 10:20-10:50 Break
- 10:50-11:20 W-3 **Aurelien Manchon**
(*King Abdullah University of Science and Technology*)
Spin-Orbit Torques in Novel Materials
- 11:20-11:40 W-4 **M. Oogane, Y. Kurimoto, H. Saruyama, M. Hosoda, H. Naganuma and Y. Ando**
(*Tohoku University*)
Tunnel magneto resistance effect in MTJs with Mn-based ordered alloys
- 11:40-11:50 Photo
- 11:50-14:00 Lunch

- 14:00-14:30 W-5 **Burkard Hillebrands**
(Technische Universität Kaiserslautern)
Novel transport phenomena using magnonic Bose-Einstein condensates
- 14:30-14:50 W-6 **Shigemi Mizukami and Satoshi Iihama**
(Tohoku University)
Laser-induced spin-wave propagation in magnetic films
- 14:50-15:20 W-7 **Johan Åkerman**
(University of Gothenburg, KTH Royal Institute of Technology)
Topological and non-topological dynamical solitons in spin torque and spin hall effect driven nano-oscillators
- 15:20-15:50 Break
- 15:50-16:20 W-8 **Claudia Felser**
(Max Planck Institute Chemical Physics of Solids)
Magnetism in Mn₂-Heusler compounds
- 16:20-16:40 W-9 **Masafumi Yamamoto and Tetsuya Uemura**
(Hokkaido University)
Half-metallic Heusler alloys as spin sources of spintronic devices
- 16:40-17:00 W-10 **Masafumi Shirai**
(Tohoku University)
Electronic Structure at Interfaces between Heusler alloys and MgO

November 19th (Thursday)

- 9:00-9:45 T-1 **David Awschalom**
(University of Chicago)
Quantum Technologies Based on Spins in Semiconductors
- 9:45-10:15 T-2 **Dieter Weiss**
(University of Regensburg)
Transport and magnetocapacitance in HgTe-based topological insulators
- 10:15-10:45 Break
- 10:45-11:15 T-3 **Kang L. Wang**
(University of California, Los Angeles)
Topological Insulators: Quantum Anomalous Hall and Spintronics
- 11:15-11:35 T-4 **Shunsuke Fukami, Chaoliang Zhang, Samik DuttaGupta, Aleksandr Kurenkov, and Hideo Ohno**
(Tohoku University)
Spin-orbit torque switching for three-terminal spintronics devices
- 11:35-11:55 T-5 **Teruo Ono**
(Kyoto University)
Orbital Magnetism on the Dzyaloshinskii-Moriya Interaction
- 11:55-14:00 Lunch

- 14:00-14:30 T-6 **R. Khymyn¹, B. Ivanov², I. Lisenkov^{1,3}, V. Tyberkevych¹ and A. Slavin¹**
(¹*Oakland University*, ²*Institute of Magnetism, NASU and MESYSU*
³*Kotelnikov Institute of Radioengineering and Electronics*)
Transfer of a pure spin through an antiferromagnetic insulator
- 14:30-15:00 T-7 **Tomasz Dietl**
(*Polish Academy of Sciences, University of Warsaw, Tohoku University*)
Spin-spin interactions in topological materials doped with transition metals
- 15:00-15:30 T-8 **Masashi Kawasaki^{1,2}**
(¹*University of Tokyo*, ²*RIKEN Center for Emergent Matter Science*)
Quantum Anomalous Hall Effect in Topological Insulator Heterostructures
- 15:30-17:30 **Poster Session**
- 17:30-18:00 Transfer
- 18:00-20:00 Banquet

November 20th (Friday)

- 9:00-9:30 F-1 **Geoffrey Beach**
(Massachusetts Institute of Technology)
Spin orbit torques and chiral spin textures in ultrathin magnetic films
- 9:30-9:50 F-2 **Masamitsu Hayashi**
(National Institute for Materials Science)
Electrically and thermally generated spin current in heavy metals
- 9:50-10:20 Break
- 10:20-10:50 F-3 **C.-H. Lambert¹, M. S. El Hadri¹, P. Pirro¹, N. Bergeard¹,
G. Malinowski¹, S. Petit-Watelot¹, M. Hehn¹, E. E. Fullerton²
and S. Mangin¹**
(¹Université de Lorraine, ²University of California San Diego)
All-optical helicity-dependent switching in magnetic nano-structures and devices
- 10:50-11:20 F-4 **Julie Grollier**
(Universite Paris Sud)
Spin-torque nanodevices for bio-inspired computing
- 11:20-11:35 Closing

Poster Session, November 19th (Thursday) 15:30-17:30(Room A401)

- P-1 **Dae-Yun Kim, Duck-Ho Kim, Joon Moon and Sug-Bong Choe**
(*Seoul National University*)
Determination of magnetic domain-wall types by observing Dzyaloshinskii-Moriya-interaction-induced domain expansion patterns
- P-2 **S. DuttaGupta, S. Fukami, C. Zhang, H. Sato, M. Yamanouchi, F. Matsukura, and H. Ohno**
(*Tohoku University*)
Different universality classes for current and field driven domain wall creep in a magnetic metal
- P-3 **Matthias Noske, Hermann Stoll and Gisela Schütz**
(*Max Planck Institute for Intelligent Systems*)
Ultrafast Vortex Core Reversal: Fundamentals and applications
- P-4 **Radek Jesko¹, Robin Silber¹, Ondrej Stejskal¹, Dominik Legut¹, Martin Zahradnik², Lukas Beran², Martin Veis² and Jaroslav Hamrle¹**
(¹*VSB-Technical University of Ostrava*, ²*Charles University*)
Magneto-optic properties of Heusler Co₂Fe(Al_{0.5}Si_{0.5})
- P-5 **Ryo Hiramatsu, Hitoshi Kubota, Sumito Tsunegi, Shingo Tamaru, Kay Yakushiji, Akio Fukushima, Rie Matsumoto, Hiroshi Imamura, and Shinji Yuasa**
(*National Institute of Advanced Industrial Science and Technology*)
Bias voltage and magnetic field angle dependence of out-of-plane precession in magnetic tunnel junctions having a planar free layer and perpendicularly magnetized polarizer
- P-6 **Kyota Watanabe, Hideo. Sato, Shunsuke Fukami, Fumihiko Matsukura, and Hideo Ohno**
(*Tohoku University*)
Layer Thicknesses and Annealing Condition Dependence of Magnetic Properties of CoFeB-MgO Structure
- P-7 **T. Nakano¹, M. Oogane¹, T. Furuichi², K. Ao², H. Naganuma¹ and Y. Ando¹**
(¹*Tohoku University*, ²*DENSO CORP.*)
Effect of Co/Ta insertion layer in magnetic tunnel junctions with [Co/Pd]-based reference layer for magnetic sensor

- P-8 **Q. T. Zhang^{1,2}, L. You², X. Shen¹, C. H. Wan¹, R. C. Yu¹, J. Wang², and X. F. Han¹**
(¹Chinese Academy of Sciences, ²Nanyang Technological University)
Polarization-Mediated Thermal Stability of Metal/Oxide Heterointerface
- P-9 **Jaewoo Jeong¹, Yari Ferrante^{1,2}, Mahesh Samant¹ and Stuart Parkin^{1,2}**
(¹IBM Almaden Research Center, ²Max Planck Institute of Microstructure Physics)
Sputtering growth on amorphous Si/SiO₂ substrates of perpendicularly-magnetized ferrimagnetic Mn₃Ge Heusler thin films with giant coercivity
- P-10 **K. Yoshizumi, M. Kohda, and J. Nitta**
(Tohoku University)
Determination of Dresselhaus spin-orbit interaction material parameter γ in narrow InGaAs/InAlAs wires
- P-11 **Fumiya Nagasawa, Mengqi Wang, Makoto Kohda, and Junsaku Nitta**
(Tohoku University)
Sign change of an effective Dresselhaus spin-orbit field through the gate-controlled k-linear and -cubic terms
- P-12 **Sergii Grytsiuk, Aurelien Manchon, and Udo Schwingenschlogl**
(King Abdullah University of Science and Technology)
k-asymmetric spin-splitting at the interface between transition metal ferromagnets and heavy metals
- P-13 **S. Miyakozawa, L. Chen, F. Matsukura, and H. Ohno**
(Tohoku University)
Temperature dependence of magnetotransport properties in (Ga,Mn)As:Li
- P-14 **Kenji Kubo and Takao Morinari**
(Kyoto University)
Numerical Simulation of Spin Current Generation in Antiferromagnetic Skyrmion
- P-15 **Duck-Ho Kim¹, Kyoung-Woong Moon², Sang-Cheol Yoo^{1,3}, Dae-Yun Kim¹, Byoung-Chul Min³, Chanyong Hwang² and Sug-Bong Choe¹**
(¹Seoul National University, ²Korea Research Institute of Standards and Science, ³Korea Institute of Science and Technology)
Optimization of skyrmion-like-magnetic bubblecade speed by adjustment of strength and angle of magnetic field

- P-16 **Seonghoon Woo¹, Kai Litzius^{2,3}, Benjamin Krüger², Mi-Young Im^{4,5}, Lucas Caretta¹, Kornel Richter², Maxwell Mann¹, Andrea Krone², Robert Reeve², Markus Weigand⁶, Parnika Agrawal¹, Ivan Lemesh¹, Mohamad-Assaad Mawass^{2,6}, Peter Fischer^{4,7}, Mathias Kläui^{2,3}, Geoffrey S. D. Beach¹**
(¹Massachusetts Institute of Technology, ²Johannes Gutenberg-Universität Mainz, ³Graduate School of Excellence Materials Science in Mainz, ⁴Lawrence Berkeley National Laboratory, ⁵Daegu Gyeongbuk Institute of Science and Technology ⁶Max Planck Institute for Intelligent Systems, ⁷University of California, Santa Cruz)
Room temperature magnetic skyrmions and their current-driven dynamics in ultrathin Co films
- P-17 **Joo-Sung Kim, Joon-Moon, Sang-Jun Yun and Sug-Bong Choe**
(Seoul National University)
Optical Measurement of Spin-Orbit Torque with Circularly Polarized Light
- P-18 **Satoshi Kokado¹, Takuya Ito¹, Ryutaro Wada¹, and Masakiyo Tsunoda²**
(¹Shizuoka University, ²Tohoku University)
Anisotropic Magnetoresistance Effects in Fe, Co, Ni, Fe₄N, and Half-Metallic Ferromagnet: Systematic Analysis and Intuitive Explanation
- P-19 **C. Zhang, S. Fukami, H. Sato, F. Matsukura, and H. Ohno**
(Tohoku University)
Magnetization switching via Spin-orbit torque in nano-scale Ta/CoFeB/MgO
- P-20 **T. Anekawa, C. Zhang, S. Fukami, and H. Ohno**
(Tohoku University)
A three-terminal spin-orbit torque device with a new configuration
- P-21 **H. Wu, C. H. Wan, Z. H. Yuan, X. Zhang, J. Jiang, Q. T. Zhang and X. F. Han**
(Chinese Academy of Sciences)
Observation of pure inverse spin Hall effect in ferromagnetic metals by FM/AFM exchange bias structures
- P-22 **L. Mihalceanu, A. Conca, S. Keller, P. Fuhrmann, B. Hillebrands, and E. Th. Papaioannou**
(Technische Universität Kaiserslautern)
Investigation of the spin pumping effect in epitaxially grown Fe/Pt and Fe/MgO/Pt systems
- P-23 **Tobias Fischer, Thomas Meyer, Thomas Brächer, Björn Heinz, Moritz Geilen, Andrés Conca, and Burkard Hillebrands**
(Technische Universität Kaiserslautern)
Investigation of Co₄₀Fe₄₀B₂₀ spin-wave waveguides

- P-24 **A. Okada, Y. Hashimoto, S. Kanai, F. Matsukura, and H. Ohno**
(*Tohoku University*)
Electrical modulation of damping constant in Ta/CoFeB/MgO with perpendicular easy axis
- P-25 **Joachim Gräfe¹, Ajay Gangwar², Ambra Caprile³, Matthias Noske¹, Hermann Stoll¹, Christian H. Back², Eberhard J. Goering¹, Gisela Schütz¹**
(¹*Max Planck Institute for Intelligent Systems*, ²*University of Regensburg*, ³*Istituto Nazionale di Ricerca Metrologica*)
X-Ray Microscopic Investigation of Spin Wave Propagation in Nanoscaled Antidot Lattices
- P-26 **Eli Christopher I. Enobio, Hideo Sato, Shunsuke Fukami, Fumihiko Matsukura, and Hideo Ohno**
(*Tohoku University*)
CoFeB thickness dependence of damping constant for single and double CoFeB-MgO interface structures
- P-27 **F. Heussner, T. Brächer, P. Pirro, T. Meyer, T. Fischer, M. Geilen, B. Heinz, B. Lägél, A. A. Serga and B. Hillebrands**
(*Technische Universität Kaiserslautern*)
Phase to Amplitude Conversion by Parallel Parametric Amplification of Propagating Spin Waves in Microstructured Ni₈₁Fe₁₉ Waveguides
- P-28 **Takahiro Chiba¹, Gerrit E. W. Bauer^{1,2}, Saburo Takahashi¹**
(¹*Tohoku University*, ²*TU-Delft*)
Effective exchange fields in spin-torque resonance of magnetic insulators
- P-29 **T. Meyer¹, T. Brächer¹, P. Pirro¹, T. Fischer¹, A. A. Serga¹, H. Naganuma², K. Mukaiyama², M. Oogane², Y. Ando², and B. Hillebrands¹**
(¹*TU Kaiserslautern*, ²*Tohoku University*)
Control of the effective spin-wave damping in Heusler-Pt waveguides via the spin-transfer torque effect
- P-30 **C. González-Fuentes and C. García**
(*Universidad Técnica Federico Santa María*)
Lineshapes of Spin-Torque and Voltage-Induced Ferromagnetic Resonance in Magnetic Tunnel Junctions

- P-31 **M. Jäckl^{1*}, I.A. Akimov^{1,2}, V.I. Belotelov^{3,4}, D.V. Dodonov⁵, I.V. Savochkin³, A.K Zvezdin^{4,5}, and M. Bayer^{1,2}**
(¹TU Dortmund, ²Russian Academy of Sciences,
³Lomonosov Moscow State University, ⁴Russian Quantum Center,
⁵Moscow Institute of Physics and Technology)
Resonant optical excitation of ultrafast magnetization dynamics in Iron Garnets by a Sequence of Optical Pulses
- P-32 **Piotr Ogrodnik^{1,2}, Sławomir Ziętek¹, Witold Skowroński¹, Feliks Stobiecki³, Sebastiaan van Dijken⁴, Józef Barnas^{3,5} and Tomasz Stobiecki¹**
(¹AGH University of Science and Technology,
²Warsaw University of Technology,
³Polish Academy of Sciences, ⁴Aalto University, ⁵Adam Mickiewicz University)
Spin-diode effect in the permalloy/PMN-PT system
- P-33 **Muftah Al-Mahdawi, Yohei Shiokawa, Satya P. Pati, Tomohiro Nozaki, and Masashi Sahashi**
(Tohoku University)
Measuring Switching Energy in Single-Layer Magnetoelectric Cr₂O₃
- P-34 **I. Weymann and K.P. Wójcik,**
(Adam Mickiewicz University)
Tunnel magnetoresistance and spin polarization of double quantum dots strongly coupled to ferromagnetic leads